

**IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA**

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SYNGENTA CROP PROTECTION, LLC,

Plaintiff,

v.

WILLOWOOD, LLC, WILLOWOOD USA,  
LLC, WILLOWOOD AZOXYSTROBIN,  
LLC, and WILLOWOOD LIMITED,

Defendants.

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Civil Action No: 1:15-CV-274

**PLAINTIFF SYNGENTA CROP PROTECTION LLC'S TRIAL BRIEF**

## **TABLE OF CONTENTS**

	<b><u>Page</u></b>
TABLE OF AUTHORITIES.....	iv
TABLE OF EXHIBITS AND RELEVANT DOCKET ENTRIES .....	vi
I. Introduction .....	1
II. Factual Background.....	3
A. The Asserted Patents and Accused Products.....	3
B. Willowood’s Efforts to Gain Early Market Entry .....	3
C. Willowood’s Damaging Actions in the Market Place.....	7
D. Syngenta Reactions in the Market Place .....	9
E. Limited Impact of Other Market Participants .....	12
III. Syngenta Will Prevail on Issues Relating to Willowood’s Infringement of the Compound Patents.....	14
A. W-Ltd. Infringed the Compound Patents by Importing Azoxystrobin Into the United States or by Selling or Offering to Sell Azoxystrobin to W-USA in the United States. ....	14
B. Willowood Willfully Infringed the Compound Patents. ....	15
IV. Syngenta Will Prevail on Issues Relating to Willowood’s Infringement of the ’138 Process Patent.....	16
A. Willowood Infringed the ’138 Patent.....	16
B. Willowood Willfully Infringed the ’138 Patent. ....	19
V. Syngenta Will Prevail on Issues Relating to Willowood’s Infringement of the ’761 DABCO Patent. ....	19
A. Defendants Have Not Proven by a Preponderance of Evidence that Their Azoxystrobin Technical Is Manufactured Using a Process that Does Not Infringe the ’761 Patent.....	19

B.	Defendants Willfully Infringed the '761 Patent.....	20
C.	Defendants Cannot Establish Through Clear and Convincing Evidence that the Asserted Claims of the '761 Patent are Invalid as Obvious. ....	20
VI.	Willowood's Patent Infringement Has Resulted in Substantial Monetary Damages to Syngenta. ....	22
VII.	Syngenta Will Be Entitled to Permanent Injunctive Relief. ....	25
VIII.	Syngenta Anticipates Filing Motions for Judgment as a Matter of Law. ....	26

## **TABLE OF AUTHORITIES**

### **Page(s)**

#### **Cases**

<i>Akamai Techs., Inc. v. Limelight Networks</i> , 797 F.3d 1020 (Fed. Cir. 2015) (en banc).....	17, 18, 19
<i>eBay Inc. v. MercExchange, L.L.C.</i> , 547 U.S. 388 (2006) .....	25
<i>Feit Elec. Co., Inc. v. Cree, Inc.</i> , No. 1:15CV535, 2016 WL 1057039 (M.D.N.C. Mar. 14, 2016).....	21
<i>Halo Elecs., Inc. v. Pulse Elecs., Inc.</i> , 136 S. Ct. 1923 (2016) .....	25
<i>Litecubes, LLC v. N Light Prods., Inc.</i> , 523 F.3d 1353 (Fed. Cir. 2008).....	14
<i>Microsoft Corp. v. i4i Ltd. P'ship</i> , 564 U.S. 91 (2011) .....	20, 21
<i>N. Am. Philips Corp. v. Am. Vending Sales, Inc.</i> , 35 F.3d 1576 (Fed. Cir. 1994).....	14
<i>Odetics, Inc. v. Storage Tech. Corp.</i> , 14 F. Supp. 2d 785 (E.D. Va. 1998).....	25
<i>Payless Shoesource, Inc. v. Reebok Int'l Ltd.</i> , 998 F.2d 985 (Fed. Cir. 1993).....	25
<i>Pozen Inc. v. Par Pharm., Inc.</i> , 696 F.3d 1151 (Fed. Cir. 2012).....	21
<i>Rite-Hite Corp. v. Kelley Co., Inc.</i> , 56 F.3d 1538 (Fed. Cir. 1995).....	22
<i>SEB S.A. v. Montgomery Ward &amp; Co., Inc.</i> , 594 F.3d 1360 (Fed. Cir. 2010), <i>aff'd sub nom. Glob.-Tech Appliances, Inc. v. SEB S.A.</i> , 563 U.S. 754 (2011).....	14
<i>State Indus., Inc. v. Mor-flo Indus., Inc.</i> , 883 F.2d 1573 (Fed. Cir 1989).....	24

<i>Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.</i> , 617 F.3d 1296 (Fed. Cir. 2010).....	14
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<i>Windsurfing Int’l Inc. v. AMF, Inc.</i> , 782 F.2d 995 (Fed. Cir. 1986).....	25
--	----

## **Statutes**

35 U.S.C. § 271(a).....	1, 14, 23
35 U.S.C. § 271(g).....	1, 16
35 U.S.C. § 283 .....	2, 25
35 U.S.C. § 284 .....	2, 22, 25
35 U.S.C. § 285 .....	2
35 U.S.C. § 295 .....	2, 19
7 U.S.C. § 136a(c)(1)(F).....	23
7 U.S.C. § 136a(c)(2)(D) .....	4

## **Rules**

FED. R. CIV. P. 50(a) .....	26
FED. R. CIV. P. 50(b).....	26
FED. R. CIV. P. 59.....	26

**TABLE OF EXHIBITS AND RELEVANT DOCKET ENTRIES**

<b><u>Ex.</u></b> <sup>1</sup>	<b><u>Description</u></b>	<b><u>Public</u></b>	<b><u>Sealed</u></b>
1	Intra-Willowood Purchase Agreement (WW000007–11)		
2	WW026416–18 (DDX 71)		
	WW019062–193	DKT 99-9	N/A
	10/31/16 Declaration of Dr. Joseph M. D. Fortunak in Support of Syngenta’s Motion for Partial Summary Judgment of Infringement.	DKT 99-1	N/A
	10/31/16 Declaration of Dr. Joseph M. D. Fortunak in Support of Syngenta’s Motion for Partial Summary Judgment of No Invalidity	DKT 96-2	N/A
	Excerpts from the August 31, 2016 deposition transcript of Wu Xiaolong	DKT 99-6	N/A
	Excerpts from the August 4, 2016 deposition transcript of Brian Heinze	DKT 99-4	N/A
	Excerpts from the August 23, 2016 deposition transcript of Shen Shaojun	DKT 96-12	N/A
	Excerpts from the October 14, 2016 deposition transcript of Mark Lipton	DKT 96-15	N/A
	WW00013–16	DKT 99-7	N/A
	WW022213–21	DKT 99-10	N/A
	WW026251–54	DKT 96-21	DKT 99-12
	WW026320–26	DKT 96-23	DKT 99-14
	WW026332–43	DKT 96-24	DKT 99-15
	WW026370	DKT 96-25	DKT 99-16
	U.S. Patent App. Pub. No. 2003/0092723 (“Weintritt”)	DKT 96-34	N/A
	WG0000032–34	DKT 99-18	N/A

<sup>1</sup> Exhibit numbers refer to the exhibits attached to the Declaration of Hari Santhanam filed concurrently with this brief.

<b><u>Ex.</u></b> <sup>1</sup>	<b><u>Description</u></b>	<b><u>Public</u></b>	<b><u>Sealed</u></b>
	Excerpts from the July 13, 2016 deposition transcript of Jeff Cecil (“Cecil Tr.”) [CONFIDENTIAL]	DKT 164-2	DKT 167-1
	Excerpts from the July 15, 2016 deposition transcript of Rex Wichert (“Wichert Tr.”) [CONFIDENTIAL]	DKT 164-3	DKT 167-2
	Excerpts from the July 22, 2016 deposition transcript of Andrew Fisher (“Fisher Tr.”) [CONFIDENTIAL]	DKT 164-4	DKT 167-3
	Excerpts from the July 22, 2016 deposition transcript of Adora Clark (“Clark Tr.”) [CONFIDENTIAL]	DKT 164-5	DKT 167-4
	Excerpts from the July 25, 2016 deposition transcript of Brad Reichman (“Reichman Tr.”)	DKT 164-6	N/A
	Excerpts from the August 4, 2016 deposition transcript of Brian Heinze (“Heinze Tr.”)	DKT 164-7	N/A
	Excerpts from the August 23, 2016 deposition transcript of Vijay Mundhra (“Mundhra Tr.”)	DKT 164-8	N/A
	WW026430-508, Willowood Management Presentation (Plaintiff’s Deposition Exhibit (“PDX”) 42) [CONFIDENTIAL]	DKT 164-9	DKT 167-5
	Compilation of Willowood emails notifying customers of price change (PDX 43)	DKT 164-10	N/A
	Compilation of Willowood emails notifying customers of price change (PDX 44)	DKT 164-11	N/A
	WW012693 (PDX 48)	DKT 164-12	N/A
	WW010580–85 (PDX 58)	DKT 164-13	N/A
	WW003071 (PDX 78)	DKT 164-14	N/A
	WW008930–39 (PDX 79)	DKT 164-15	N/A
	WW0011039–45 (PDX 81)	DKT 164-16	N/A
	WW025053	DKT 164-17	N/A
	SYN056311–12 [CONFIDENTIAL]	DKT 164-18	DKT 167-6
	SYN287760 [CONFIDENTIAL]	DKT 164-19	DKT 167-7
	SYN291271 [CONFIDENTIAL]	DKT 164-20	DKT 167-8

<b><u>Ex.</u></b> <sup>1</sup>	<b><u>Description</u></b>	<b><u>Public</u></b>	<b><u>Sealed</u></b>
	SYN283441-62 (Cecil-1) [CONFIDENTIAL]	DKT 164-21	DKT 167-9
	SYN056120-41 (Cecil-20) [CONFIDENTIAL]	DKT 164-22	DKT 167-10
	SYN037161 (Cecil-23) [CONFIDENTIAL]	DKT 164-23	DKT 167-11
	SYN283503-11 (Wichert-19) [CONFIDENTIAL]	DKT 164-24	DKT 167-12
	Willowood Azoxy 2SC EPA Registration: EPA Reg. No. 87290-44 (SYN291126)	DKT 164-26	N/A
	Willowood AzoxyProp Xtra EPA Registration: EPA Reg. No. 87290-56 (SYN291185)	DKT 164-27	N/A
	Albaugh EPA Registrations: EPA Registration Nos. 42750-261 (SYN289530), 42750-262 (SYN289587), 42750-284 (SYN289593), 42750-285 (SYN289612), 42750-289 (SYN289637), 42750-290 (SYN289673), 42750-291 (SYN289708), 42750-292 (SYN289722), and 42750-297 (SYN289735)	DKT 164-28	N/A
	Cheminova EPA Registrations: EPA Registration Nos. 67760-124 (SYN290002), 67760-129 (SYN291255), and 67760-130 (SYN290063)	DKT 164-29	N/A
	Andrew Noel & Jack Kaskey, FMC Buys Cheminova for \$1.8 Billion and Revises Breakup Bloomberg News (September 8, 2014), <a href="https://www.bloomberg.com/news/articles/2014-09-08/fmc-to-buy-cheminova-for-1-8-billion-as-ceo-modifies-strategy">https://www.bloomberg.com/news/articles/2014-09-08/fmc-to-buy-cheminova-for-1-8-billion-as-ceo-modifies-strategy</a> (last visited May 1, 2017)	DKT 164-31	N/A
	Willowood USA, Azoxy 2SC, <a href="http://www.willowoodusa.com/products/fungicides/azoxy-2sc/">http://www.willowoodusa.com/products/fungicides/azoxy-2sc/</a> (last visited May 1, 2017)	DKT 164-32	N/A
	Willowood USA, AzoxyProp Xtra, <a href="http://www.willowoodusa.com/products/fungicides/azoxyprop-xtra/">http://www.willowoodusa.com/products/fungicides/azoxyprop-xtra/</a> (last visited May 1, 2017)	DKT 164-33	N/A
	Christina D. Romer, the Aftermath of Financial Crises: Each Time Really Is Different, Sir John Hicks Lecture in Economic History (Oxford Univ. Apr. 28, 2015), available at <a href="http://eml.berkeley.edu/~cromer/Lectures/Romer%20Hicks%20Lecture%20Written%20Version.pdf">http://eml.berkeley.edu/~cromer/Lectures/Romer%20Hicks%20Lecture%20Written%20Version.pdf</a> (last visited May 1, 2017)	DKT 164-34	N/A



<b><u>Ex.</u></b> <sup>1</sup>	<b><u>Description</u></b>	<b><u>Public</u></b>	<b><u>Sealed</u></b>
	Excerpt of National Crop Insurance Services, 49 CROP INSURANCE TODAY 2 (May 2016), available at <a href="http://www.brightcopy.net/allen/cint/may2016/index.php#/0">http://www.brightcopy.net/allen/cint/may2016/index.php#/0</a> (last visited May 1, 2017)	DKT 164-35	N/A

## **I. Introduction**

On March 27, 2015, Syngenta Crop Protection, LLC (“Syngenta”) brought this action against Willowood LLC (“W-LLC”), Willowood USA, LLC (“W-USA”), Willowood Azoxystrobin, LLC (“W-Azoxy”), and Willowood Ltd. (“W-Ltd.”) (collectively, “Defendants” or “Willowood”) for infringement of four U.S. patents related to azoxystrobin—Syngenta’s breakthrough fungicidal compound—and processes for manufacturing this compound. These patents are U.S. Patent Nos. 5,602,076 (“’076 Patent”), 5,633,256 (“’256 Patent”), 5,847,138 (“’138 Patent”), and 8,124,761 (“’761 Patent”).

Willowood was aware of, and willfully infringed, these patents in an effort to obtain early registrations for its azoxystrobin products with the U.S. Environmental Protection Agency (“EPA”), and thereby enter and begin selling azoxystrobin products in the market early. This Court has already ruled, as a matter of law, that the ’256 and ’076 Patents (“Compound Patents”), which are directed to the azoxystrobin compound itself, are valid, and that at least W-USA and W-Ltd. infringed these patents. (Dkt. 141 at 27.) Syngenta will demonstrate at trial that W-Ltd. also infringed the Compound Patents under 35 U.S.C. § 271(a) by offering to sell or selling azoxystrobin to W-USA in the United States. Syngenta also will prove at trial that Willowood’s infringement of the Compound Patents was willful.

The ’138 Patent (“Process Patent”) is directed to a process for manufacturing azoxystrobin. This Court has already ruled as a matter of law that the claimed process is valid. (Dkt. 141 at 27.) And there is no dispute that the claimed process is used to manufacture the azoxystrobin in Willowood’s products. (*Id.* at 9.) Syngenta will demonstrate at trial that Willowood infringed the ’138 Patent under 35 U.S.C. § 271(g) either because the claimed process steps are carried out by a single entity, or because Willowood sufficiently directed or controlled the entities carrying out these process steps

so as to be liable for infringement. Additionally, Syngenta will demonstrate that Willowood's infringement of the Process Patent was willful.

The '761 Patent ("DABCO Patent") is directed to a process for manufacturing azoxystrobin that uses a catalyst known as DABCO at specified levels of concentration. Based on this Court's application of the presumption under 35 U.S.C. § 295, Willowood's products are presumed to include azoxystrobin manufactured using the claimed process, and it is Willowood's burden to prove otherwise. (Dkt. 141 at 27.) Willowood has failed to carry that burden and asserts that DABCO is not used in the manufacturing process. But testing by three different laboratories confirms that DABCO is, in fact, used to manufacture Willowood's azoxystrobin. Syngenta will further demonstrate at trial that Willowood's infringement of the '761 Patent is willful. Although Willowood challenges the validity of the '761 Patent, Willowood cannot sustain its burden of proving invalidity by clear and convincing evidence. This is particularly so, given that Willowood relies on the exact same prior art and arguments that the Patent Office considered—and rejected—in allowing the claims of the '761 Patent.

Ultimately, Willowood's infringing actions allowed it to enter the market early, and thereby directly target and compete with Syngenta's azoxystrobin products in a manner that not only diverted sales away from Syngenta but also eroded the prices in the market to the point that Syngenta suffered substantial lost profits. Therefore, Syngenta seeks lost-profits damages to compensate it for Willowood's infringement, as well as enhanced damages as a result of Willowood's willful conduct. 35 U.S.C. §§ 284, 285. Syngenta further seeks a permanent injunction to stop Willowood's infringement of the DABCO Patent. *Id.* at § 283.

## **II. Factual Background**

### **A. The Asserted Patents and Accused Products**

1. The accused products in this case are Willowood's azoxystrobin technical and end-use and private-label products incorporating this azoxystrobin technical, including Azoxy 2SC, AzoxyProp Xtra, and Tebustrobin SC. Azoxystrobin technical is a relatively pure form of azoxystrobin that is used as the biologically active ingredient in end-use products.

2. The Compound Patents, which expired in February 2014, claim the azoxystrobin compound. Syngenta asserts that Willowood infringes claims 1–3, 5, and 7 of the '256 Patent, and claims 1–4 and 12–14 of the '076 Patent, and this Court has found that at least W-USA and W-LLC infringed these claims. (Dkt. 141 at 4–6.)

3. The Process Patent, which expired in December 2015, claims a process for making azoxystrobin using what is colloquially referred to as an “etherification” reaction followed by a “condensation” reaction. Specifically, Syngenta asserts that Willowood infringed claims 6 and 12–14 of the '138 Patent. There is no dispute that Willowood's accused products include azoxystrobin manufactured using these claimed process steps.

4. The DABCO Patent, which is still in force and does not expire until 2029, claims a process for manufacturing azoxystrobin that includes a condensation reaction that is carried out in the presence of between 0.1 and 2 mol % of the catalyst known as “DABCO.” Specifically, Syngenta asserts that Willowood infringed claims 1, 3–5 and 9–10 of the '761 Patent. There is no dispute that Willowood's accused products include azoxystrobin manufactured using a condensation reaction.

### **B. Willowood's Efforts to Gain Early Market Entry**

5. Pesticides are governed by the Federal Insecticide, Fungicide, and Rodenticide Act (“FIFRA”) and regulated by the EPA. Willowood sought and obtained

EPA approval for its end-use Azoxy 2SC and AzoxyProp Xtra products under the so-called “Formulator’s Exemption” (Dkt. 1 ¶¶ 36–41), which provides an expedited registration process that relaxes requirements for data submission to the EPA for formulators who purchase regulated active ingredients from existing, registered sources. 7 U.S.C. § 136a(c)(2)(D).

6. In registering Azoxy 2SC and AzoxyProp Xtra, Willowood falsely represented to the EPA that it qualified as a formulator because it was purportedly sourcing the azoxystrobin active ingredient (“azoxystrobin technical”) from Syngenta, when in truth Willowood never even sought to source azoxystrobin from Syngenta. (*Compare* Dkts. 53-4, 53-5, 53-6, 53-7 (identifying Syngenta as its source to EPA), *with* Dkts. 12, 33 ¶¶ 46–50 (admitting Syngenta was not its source).) Based on Willowood’s false statements, the EPA approved Willowood’s Azoxy 2SC and AzoxyProp Xtra registrations on January 6, 2014 and June 11, 2014, respectively. (Dkts. 164-26, 164-27.)

7. Without the Formulator’s Exemption, Willowood would not have been able to obtain EPA approval and sell its azoxystrobin products as early as it did. Not only does a company relying on the Formulator’s Exemption avoid the time-consuming process of generating health and safety data, but also the EPA approves applications under the Formulator’s Exemption more rapidly. (Dkt. 167-4, Clark Tr. at 39:8–42:16, 149:23–151:2.) Thus, the Formulator’s Exemption enabled Willowood to speed up its time to market. (*Id.*; Dkt. 167-2, Wichert Tr. at 41:9–43:15.)

8. To utilize the Formulator’s Exemption, Willowood still needed to develop the formulations for its end-use products in the first instance, and Willowood needed to have samples of these end-use products prepared and tested so that it could show the EPA that its products were substantially similar to Syngenta’s. To support its registration

efforts, W-USA infringed by importing five kilograms of azoxystrobin technical into the United States in 2013, before Syngenta's Compound Patents expired, and in doing so Willowood knew that its actions likely amounted to infringement. (Dkt. 141 at 4.) During this same timeframe, W-LLC also infringed by commissioning Adjuvants Unlimited ("Adjuvants") to develop formulations for Azoxy 2SC and AzoxyProp Xtra using the imported azoxystrobin, and by commissioning Analytical & Regulatory Chemistry ("ARC") to analyze the resulting formulations in support of Willowood's EPA registrations. (*Id.* at 6.) This Court has already held that these actions by W-USA and W-LLC amount to infringement. (*Id.* at 4, 6.)

9. Syngenta also contends that W-Ltd. infringed the Compound Patents by selling or offering for sale the azoxystrobin technical to W-USA in the United States in 2013. Syngenta further contends—and will establish at trial—that each of Defendants infringed the '138 and '761 Patents (and continues to infringe in the case of the '761 Patent) by importing, using, selling, or offering to sell in the United States products that incorporate azoxystrobin technical made using Syngenta's patented processes.

10. Collectively, Defendants' infringing activities enabled them to apply for and receive EPA approval for their products and enter the market much earlier than they would have been able to enter the market had they not infringed Syngenta's patents. For example, Defendants submitted azoxystrobin registrations to the EPA in August 2013 and January 2014, before Syngenta's Compound Patents expired in February 2014 and while Syngenta's '138 and '761 Patents were in force. Willowood thereby obtained EPA approval for Azoxy 2SC in January 2014 and AzoxyProp Xtra in June 2014 (Dkts. 164-26, 164-27), much earlier than if it had not infringed Syngenta's patents. Since obtaining these product registrations, Willowood has continued to import, use, sell, and offer for sale

products incorporating azoxystrobin technical made using Syngenta's patented processes.

11. Even with its regulatory head start, Willowood barely made it out of the gates in time to make sales in 2014 and 2015. Azoxystrobin sales generally peak in the fourth quarter of the year as well as in the spring. (Dkt. 167-2, Wichert Tr. at 183:4–16; *see also* Dkt. 164-7, Heinze Tr. at 169:21–170:7 (explaining selling season begins on October 1).) Willowood used a toll manufacturer<sup>2</sup> (Agraform) who formulated Willowood's end-use products and had specific tolling deadlines that Willowood needed to make in order to have its products formulated and available for sale. (Dkt. 164-8, Mundhra Tr. at 150:9–153:15.) In fact, Willowood struggled to ship azoxystrobin to Agraform in order to meet a July 2014 tolling deadline and thus be in a position to sell its end-use products in 2014. (*Id.* at 153:19–157:4 (discussing Dkt. 164-14 at WW003071).) Mr. Brian Heinze, CEO of W-USA, explained in an email that Willowood needed to ship its azoxystrobin by July 2, 2014, stating “[w]e cannot afford to have the toll manufacturer not have the technical to continue the campaign. If that happens, they will clean out the system and we will not be able to produce the entire quantity needed for the season.” (Dkt. 164-14 at WW003071.)

12. Willowood struggled to meet another tolling deadline in November–December 2014, in order to be able to formulate product in time for the spring season that began in March 2015. In a November 16, 2014 email, Mr. Mundhra of W-Ltd. explained that “[i]f at all Agraform does not formulate this for us, I do not believe that there is no [sic] other formulator in all of USA that can not [sic] formulate this product when the main season starts from March.” (Dkt. 164-15 at WW008930–31.)

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<sup>2</sup> A “toll manufacturer” is a third-party vendor who provides a subset of manufacturing services to a company that cannot complete the entire manufacturing process in-house. In this case, because Willowood does not have the resources to formulate its own products, it used third-party Agraform as a toll manufacturer to perform this service.

13. Given Willowood's own contemporaneous assessments, delays by even a few months would have substantially impacted its ability to sell in 2014-2015. Had Willowood waited until after Syngenta's Compound Patents expired to (1) import its azoxystrobin, (2) develop and formulate its end-use products, (3) conduct testing to support its EPA registrations, and/or (4) followed the normal EPA registration process without relying on the formulator's exemption by waiting for the approval of its own azoxystrobin technical before applying to register end-use azoxystrobin products using that azoxystrobin, Willowood likely would have missed the opportunity to make azoxystrobin sales in 2014 and at least the first quarter of 2015, if not most or all of the 2015 growing season. (Dkt. 149-1 at 10.) Thus, by infringing Syngenta's Compound Patents (expired February 2014), Willowood gained at least a one-year head start in selling azoxystrobin products. (*Id.* at 35.) To the extent Willowood is found to infringe Syngenta's '138 Patent (expired December 2015), Willowood gained more than a two-year head start. (*Id.* at 39.) And to the extent Willowood is found to infringe the '761 Patent, it entered the market more than fifteen years earlier than it otherwise could have entered the market.

**C. Willowood's Damaging Actions in the Market Place**

14. Willowood began marketing its azoxystrobin products in 2013. For example, as early as March 2013 and leading up to Willowood's product launch in July 2014, Matt Heinze, an Account Manager at W-USA, began emailing potential customers regarding Willowood's upcoming azoxystrobin products that he indicated could be substituted for Syngenta's azoxystrobin products. (Dkt. 164-7, Heinze Tr. at 152:3-158:4.) In December 2013, Brian Heinze emailed colleagues stating that Willowood needed to get partners lined up by early 2014 to sell its azoxystrobin products. (Dkt. 164-17 at WW025053.) By June 2014, Willowood had marketed its azoxystrobin products to potential customers and had



even provided those customers with information concerning the prices that Willowood would be offering upon launch. (Dkt. 164-7, Heinze Tr. at 157:13–158:4 (discussing Dkt. 164-12 at WW012693).) Willowood continued to periodically email customers regarding its azoxystrobin products, informing them of Willowood’s price reductions and specifically comparing its products to Syngenta’s products, including Quadris®, Abound®, and Quilt Xcel®. (*Id.* at 150:14–156:6 (discussing Dkts. 164-10, 164-11); Dkts. 164-32, 164-33 (touting that Willowood uses the same active ingredients as Quadris® and Quilt Xcel®).) And Willowood was persistent with its marketing to potential customers, including Syngenta’s customers. (Dkt. 167-6 at SYN056311–12.)

15. Upon entering the market, Willowood sold its azoxystrobin products at prices lower than Syngenta’s, and continued to lower its prices. For example, Brad Reichman, the General Manager of Reichman Sales, an agricultural chemical distributor who sold both Willowood and Syngenta azoxystrobin products, testified that Willowood was not only selling end-use azoxystrobin products to him at lower-than-Syngenta prices, but was also selling to others at *even lower prices* than Willowood was offering to him such that he could not profitably sell Willowood’s products. (Dkt. 164-6, Reichman Tr. at 51:7–18, 69:5–14; *see also id.* at 56:7–57:4.)

16. Brian Heinze testified that as early as October 2014, Willowood was offering Azoxy 2SC at \$125 per gallon, well below Syngenta’s [REDACTED] price at the time on its comparable Quadris® product. (Dkt. 164-7, Heinze Tr. at 160:7–11, 169:4–171:5; Dkt. 167-7, SYN287760.) Mr. Reichman indicated that Willowood also offered a rebate of \$25 on sales of Azoxy 2SC, going back to October 2014, which resulted in a net price of \$100 per gallon of Azoxy 2SC. (Dkt. 164-6, Reichman Tr. at 67:23–68:11.) And as of January 2016, Willowood was also offering Azoxy 2SC to another company, Innvictis, at \$100 per

gallon. (Dkt. 164-7, Heinze Dep. at 189:9–12 (discussing Dkt. 164-13).)

17. Willowood also began offering Azoxystrobin Xtra at \$90 per gallon as early as October 2014, while Syngenta charged [REDACTED] for its comparable Quilt Xcel® product. (Dkt. 164-7, Heinze Tr. at 160:12–19; Dkt. 167-7, SYN287760.) According to Mr. Reichman, as early as February 2015, Willowood offered product rebates to Reichman Sales that brought their net price on Azoxystrobin Xtra down to around \$78-79. (Dkt. 164-6, Reichman Tr. at 70:2–71:19.) On July 8, 2015, despite internal disagreement about price reductions, Willowood reduced its price on Azoxystrobin Xtra to \$80 per gallon (retroactive to July 1) and communicated this price reduction to all of its customers. (Dkt. 164-7, Heinze Tr. at 152:3–153:5, 173:2–175:16, 180:10–183:20.) Less than ten days later, Willowood offered Azoxystrobin Xtra to Innvictis at \$76 per gallon. (*Id.* at 184:4–186:10.)

#### **D. Syngenta Reactions in the Market Place**

18. Syngenta markets its azoxystrobin products [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] (Dkt. 167-2, Wichert Tr. at 56:25–57:18; Dkt. 167-3, Fisher Tr. at 53:15–24; Dkt. 167-9 at SYN283458; Dkt. 167-10 at SYN056132; Dkt. 149-1 at 6.)

[REDACTED]

[REDACTED]

[REDACTED] (Dkt. 167-2, Wichert Tr. at 56:25–57:18; Dkt. 167-3, Fisher Tr. at 53:15–24; Dkt. 149-1 at 6.)

19. [REDACTED]

[REDACTED] (Dkt. 167-2, Wichert Tr. at

176:12–25.) [REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 176:12–25, 197:4–198:11, 200:5–23.) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-1, Cecil Tr. at 135:19–136:8; Dkt. 167-2, Wichert Tr. at 56:25–57:18; Dkt. 167-9 at SYN283458.)

20. In 2014, Syngenta did not expect significant generic entries with respect to azoxystrobin, because only the Compound Patents expired in that year while the Process and DABCO Patents were still in effect through at least 2015 and beyond. To the extent that Syngenta expected generic entry before expiration of the Process and DABCO Patents, Dr. Rex Wichert, Syngenta’s former Post-Patent Strategy Manager, testified that [REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 34:17–35:22; Dkt. 149-1 at 14.) Accordingly, [REDACTED] (Dkt. 149-1 at Ex. 4; Dkt. 167-8 at SYN291271.)

21. However, because Willowood entered the market early and priced its products so low, Syngenta was faced with unexpected early competition from Willowood’s generic azoxystrobin products. (Dkt. 167-2, Wichert Tr. at 182:10–23, 242:12–24.) And because Syngenta could not react by quickly altering its pricing, it was selling azoxystrobin in 2014 that the market viewed as being “overpriced.” Thus, Syngenta suffered a sales decline in 2014. (Dkt. 149-1 at Ex. 4; Dkt. 167-8 at SYN291271.) By late 2014 and 2015, Syngenta recognized the effect Willowood was having on the market and responded by significantly lowering its overall prices, [REDACTED] [REDACTED] for

[REDACTED] (Dkt. 167-2, Wichert Tr. at 182:10–23, 242:12–24; Dkt. 149-1 at 14–15.)

22. Beyond lowering the prices of its existing products, Syngenta also introduced [REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-1, Cecil Tr. at 35:5–37:24, 39:13–19, Dkt. 167-2, Wichert Tr. at 160:11–161:10, 169:10–16, 176:12–177:13; Dkt. 167-3, Fisher Tr. at 54:3–13, 55:24–60:22, 66:8–67:4; Dkt. 149-1 at 6, 14.) [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 176:12–25.)

23. Syngenta also had to lower the prices at which it charged private-label customers for azoxystrobin technical. For example, in November 2015, [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 145:5–148:23, 253:9–254:22.) This reduction was a direct response to lower-priced offers Willowood made to [REDACTED] on the order of [REDACTED] per kg. (*Id.*)

24. In 2016, Syngenta introduced its latest-generation fungicides to the United States, under the brand names Trivapro<sup>®</sup> and Elatus<sup>®</sup>, which contain azoxystrobin and other active ingredients including Solatenol<sup>®</sup> (benzovindiflupyr). (Dkt. 149-1 at 5–6, 29; Dkt. 167-2, Wichert Tr. at 197:4–198:11, 200:5–23.) Syngenta introduced such Solatenol<sup>®</sup>-

based products [REDACTED]  
[REDACTED] (Dkt. 149-1 at 5–6; Dkt. 167-2, Wichert Tr. at 56:25–57:18, 197:4–198:11, 200:5–23; Dkt. 167-3, Fisher Tr. at 53:15–24.)

25. [REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 176:12–25, 197:4–198:11, 200:5–23.) At the same time, [REDACTED]  
[REDACTED] (Dkt. 167-1, Cecil Tr. at 36:4–37:24; Dkt. 167-2, Wichert Tr. at 160:11–161:10, 176:12–25.) That is, [REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 176:12–25; Dkt. 149-1 (noting Loveland pricing based on fighting brands).) Ultimately, given the price pressure from Willowood, Syngenta could not hold the prices [REDACTED]  
[REDACTED] (Dkt. 149-1 at 14 n.88.)

#### **E. Limited Impact of Other Market Participants**

26. Other generic companies had little (if any) impact on Syngenta’s azoxystrobin pricing and sales. For example, import records show that, other than Willowood, only two generic companies, Albaugh and Cheminova, had any azoxystrobin imports. (Dkt. 167-12 at SYN283506.) Albaugh received EPA approval for a generic azoxystrobin product only after Willowood’s market entry. (Dkt. 164-28.) Syngenta [REDACTED]  
[REDACTED]  
[REDACTED] (Dkt. 167-2, Wichert Tr. at 66:25–67:7, 75:7–12, 262:14–263:2.)

Also, Albaugh's main application for its azoxystrobin products [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(Dkt. 167-3, Fisher Tr. at 90:2–8, 129:3–6.) Nor was Albaugh the lowest-priced generic provider of azoxystrobin. For instance, in November 2015, Albaugh's quoted price for azoxystrobin was almost 30% higher than Willowood's quoted price. (Dkt. 167-1, Cecil Tr. at 154:8–155:6.)

27. Cheminova also had little (if any) impact on Syngenta's azoxystrobin sales and pricing. Cheminova's azoxystrobin products were not approved by the EPA until after Willowood began marketing its azoxystrobin products. (Dkt. 164-29.) Initially, Cheminova's products were not even approved for key Syngenta crops like corn, which limited Cheminova's impact in the market. (Dkt. 167-2, Wichert Tr. at 74:11–75:6.) As Dr. Wichert explained, customers would not want to purchase from Cheminova because of such label restrictions on key crops. (*Id.* at 257:1–23.)

28. Although the EPA approved Cheminova's azoxystrobin for use on corn in March 2015, Cheminova's industry participation had already dramatically fallen by that time. In September 2014, FMC announced its intent to purchase Cheminova, which was completed in April 2015. (Dkt. 164-31.) After the merger, FMC/Cheminova "g[ot] out of the business completely" (Dkt. 164-6, Reichman Tr. at 51:4–52:8) and stopped importing azoxystrobin (Dkt. 167-2, Wichert Tr. at 258:6–12; Dkt. 167-12 at SYN283506). Even while Cheminova was in the market, it did not have a significant presence. Dr. Wichert explained that [REDACTED]

[REDACTED]

██████ (Dkt. 167-2, Wichert Tr. at 259:18–261:6; *see also* Dkt. 167-1, Cecil Tr. at 37:25–38:15, 69:12–24.) Mr. Reichman also testified that Cheminova’s azoxystrobin was sold at a higher price than Willowood’s. (Dkt. 164-6, Reichman Tr. at 83:24–88:22.)

### **III. Syngenta Will Prevail on Issues Relating to Willowood’s Infringement of the Compound Patents.**

This Court has already held as a matter of law that W-USA and W-LLC infringed the Compound Patents and that the Compound Patents are valid. (Dkt. 141 at 4–6.) Syngenta will further demonstrate at trial that W-Ltd. infringed the Compound Patents under 35 U.S.C. § 271(a). Syngenta also will prove that Defendants’ infringement of the Compound Patents was willful.

#### **A. W-Ltd. Infringed the Compound Patents by Importing Azoxystrobin Into the United States or by Selling or Offering to Sell Azoxystrobin to W-USA in the United States.**

Willowood concedes that, in 2013, W-Ltd. sold azoxystrobin technical to W-USA, which is located in Roseburg, Oregon. Although Willowood claims that W-Ltd. shipped the goods free-on-board (FOB) China, one should not “exalt form over substance” in determining whether a sale occurred in the United States for purposes of infringement under 35 U.S.C. § 271(a). (Dkt. 141 at 5 (quoting *Litecubes, LLC v. N Light Prods., Inc.*, 523 F.3d 1353, 1370 (Fed. Cir. 2008); *N. Am. Philips Corp. v. Am. Vending Sales, Inc.*, 35 F.3d 1576, 1579 (Fed. Cir. 1994).) The mere fact that W-Ltd. shipped the azoxystrobin at issue FOB China “neither limits the place of sale to the location from which the goods were shipped nor precludes liability under § 271” if “other factors indicate an intention to sell infringing products to customers in the United States.” (Dkt. 141 at 5 (citing *SEB S.A. v. Montgomery Ward & Co., Inc.*, 594 F.3d 1360, 1375 (Fed. Cir. 2010), *aff’d sub nom. Glob.-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754 (2011); *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1310-11 (Fed. Cir. 2010).) Rather, to determine the location of the sale, the fact-finder should consider factors such as

the location of the buyer and seller, the location from which and to which the products were shipped, the transfer of tangible property, and the agreement by which such a transfer took place. (*Id.* (citations omitted).)

Here, there is no dispute that the W-USA, the buyer, is located in Roseburg, Oregon. and the facts overwhelmingly demonstrate that the offer for sale and sale by W-Ltd, to W-USA occurred in the United States. As an initial matter, the circumstances show that W-USA was operating as W-Ltd.'s sales arm in the United States. In fact, before W-Ltd. changed its website during the course of this litigation, it was openly telling the industry that it had launched W-USA as its "US business . . . based out of Oregon, USA." (Dkt. 22 at 3.) In a 2009 press release, Mr. Vijay Mundhra, an owner of W-Ltd. who was listed on W-USA's website as a part of W-USA's management team, stated that "[w]e [W-Ltd.] are very excited about this opportunity to expand and grow our company in the United States." (*Id.* at 5–6.) Moreover, W-Ltd. contracted with W-USA with the express understanding that W-USA is an "Oregon company organized to market Products throughout the United States of America and Canada." (Ex. 1, Intra-Willowood Purchase Agreement (WW000007).) W-Ltd. was also actively working with W-USA during the EPA registration process and fully understood that the 5kg of azoxystrobin technical sold and shipped in the United States was needed, and that it would be used to support Defendants' EPA registrations for azoxystrobin. (Ex. 2, WW026416–18 at WW026417; Dkt. 99-5, Mundhra Tr. at 36:2–39:17.) Based on these circumstances, W-Ltd. offered for sale and sold azoxystrobin technical to W-USA in the United States in 2013, thereby infringing Syngenta's Compound Patents.

**B. Willowood Willfully Infringed the Compound Patents.**

Willowood willfully infringed Syngenta's Compound Patents. In fact, Willowood became aware of all four asserted patents by "early to mid-2013." (Dkt. 96-10, Heinze Tr.



at 199:16; 211:14–18.) Yet, as this Court found, Willowood chose to engage in activities that it knew “would likely infringe” Syngenta’s Compound Patents. (Dkt. 141 at 4; *see also* Dkt. 96-10 at 305:5–18.) Willowood carried out these infringing activities in an all-out effort to obtain early EPA registrations for its azoxystrobin products so that it could enter the azoxystrobin market earlier than it otherwise could have.

#### **IV. Syngenta Will Prevail on Issues Relating to Willowood’s Infringement of the ’138 Process Patent.**

This Court has already held as a matter of law that the ’138 Patent is valid. (Dkt. 141 at 4–6.) As Syngenta will demonstrate at trial, Willowood infringed the ’138 Patent under 35 U.S.C. § 271(g) either because the etherification and condensation reactions used to manufacture Willowood’s azoxystrobin technical are carried out by a single entity, or because Willowood sufficiently controls or directs the entities carrying out these process steps such that Willowood is liable for infringement.

##### **A. Willowood Infringed the ’138 Patent.**

The evidence of record indicates that the etherification and condensation reactions are carried out by a single entity: Tai He. In fact, the process description Willowood submitted to the EPA (“EPA Process Submission”) to obtain approval for their azoxystrobin technical expressly states that Tai He performs four steps, including the etherification and condensation reactions that underlie the asserted claims of the ’138 Patent. (Dkt. 99-9, WW019062–193.) To the extent Willowood asserts that a single entity does not carry out all of the steps, then Willowood necessarily argues that it submitted false information to the EPA in obtaining approval for its azoxystrobin technical.

The EPA Process Submission also is corroborated by the fact that, under its supply agreement with Willowood, Tai He agreed to “provide . . . all information regarding the manufacturing process and inert ingredients of Azoxystrobin Technical 98% as required by the U.S. EPA for registration of the product.” (Dkt. 99-7 at WW00013.) Mr. Shen of

W-Ltd. visited Tai He in May 2014 and confirmed that Tai He had set up the manufacture of the azoxystrobin technical “according to the manufacturing process that Willowood submitted to the EPA.” (Dkt. 96-12, Shen Tr. at 76:6–77:10, 79:5–89:5.) In April 2015, after this litigation filed and at Brian Heinze’s request, another W-Ltd. employee confirmed that Tai He performs the same four steps that the EPA Process Submission identifies Tai He as performing. (Dkt. 99-4, Heinze. Tr. at 245:4–247:8; Dkt. 99-12, WW026251–54.)

Even if Willowood can establish that separate entities perform the etherification and condensation steps, Willowood is nonetheless liable for patent infringement because they sufficiently directed and controlled the actions of the entities carrying out the claimed process. *Akamai Techs., Inc. v. Limelight Networks*, 797 F.3d 1020, 1022–23 (Fed. Cir. 2015) (en banc) (finding liability despite presence of multiple actors). An entity exercises sufficient direction and control, for example, (a) if it contracts with another to perform one or more steps of a claimed method, or (b) if it “contracts with another to perform one or more steps of a claimed method” or otherwise “conditions participation in an activity or receipt of a benefit upon performance of a step or steps of a patented method and establishes the manner or timing of that performance.” *Id.*

Here, the evidence of record demonstrates that Willowood sought to use Syngenta’s patented process and deliberately orchestrated the manufacture of its azoxystrobin technical. Indeed, although Willowood disputes whether a single entity carries out the etherification and condensation reactions, Willowood does not dispute that its azoxystrobin technical is manufactured using these steps as set forth in the EPA Process Submission. Nor is this a situation where the alleged third parties acted without knowing why they were carrying out particular steps. Rather, all of the parties involved know and expect that the etherification intermediate will be used to manufacture azoxystrobin. (Dkt. 99-1, Fortunak Decl. ¶ 119; Dkt. 99-6, Wu Tr. at 71:24–72:12.) In fact, when asked whether he was aware

of anyone who manufactured azoxystrobin in any way other than an etherification process followed by a condensation, Mr. Wu (Tai He's owner and chairman) responded that he was not aware of any such manufacturer and was surprised that the question would even be asked. (Dkt. 99-6, Wu. Tr. 95:17–96:1.) Thus, to the extent Tai He contracts with a third-party to purchase the etherification intermediate, it does so with full knowledge of how it is manufactured and for what purpose it will be used. *See Akamai*, 797 F.3d at 1022–23.

Unable to find a supplier who used a different manufacturing process, Willowood (unsuccessfully) sought to circumvent the '138 Patent by instructing Tai He to divide up the manufacture of its azoxystrobin. (Dkt. 99-4, Heinze Tr. at 229:2–8; Dkt. 99-14, WW026320–26 at 26320; Dkt. 99-15, WW026332–43 at 26335–36; Dkt. 96-13, Wu Tr. at 89:18–22.) In fact, to confirm that the technical was being manufactured as Willowood had instructed, Mr. Shen of W-Ltd. visited Tai He at least twice in 2014 and was accompanied by Mr. Mundhra on one of those occasions. (Dkt. 96-12, Shen Tr. at 76:6–77:10, 79:5–89:5; Dkt. 96-13, Wu Tr. at 32:4–9.) At Mr. Shen's request, Mr. Wu (Tai He's owner) arranged for Mr. Shen to visit each of the manufacturing sites during a visit in May 2014. (*Id.*) As Mr. Heinze explained, the purpose of Mr. Shen's May 2014 visit was to “make sure that Willowood was arranging to have two to three steps in the manufacturing process resulting in an intermediate done by a third party and that intermediate being supplied to [Tai He].” (Dkt. 99-4, Heinze Tr. at 229:2–8)

Further, shortly after Syngenta filed this action, Mr. Heinze reached out to his colleagues at W-Ltd. indicating that “the first thing that Willowood needed to do was confirm that its manufacturer [w]as making the product the way that Willowood has instructed them to do so . . . [w]ith the steps being carried out by various intermediate producers.” (Dkt. 99-4, Heinze Tr. at 252:9–253:8; *see also* Dkt. 99-16, WW026370.) Under these circumstances, Tai He received a benefit (*i.e.*, millions of dollars' worth of

business) and Tai He understood the conditions under which that benefit would be provided—*i.e.*, Tai He needed to set up its manufacture as Willowood wanted. (See Dkt. 99-4, Heinze Tr. at 278:4–279:7.) Therefore, even if two separate entities carry out the etherification and condensation reactions, Willowood is liable for infringement of the ’138 Patent. See *Akamai*, 797 F.3d at 1022–23.

**B. Willowood Willfully Infringed the ’138 Patent.**

Willowood willfully infringed Syngenta’s ’138 Patent. Again, Willowood became aware of all four asserted patents by “early to mid-2013.” (Dkt. 96-10, Heinze Tr. at 199:16; 211:14–18.) In fact, Willowood attempted to find a manufacturer that did not use the “same process and steps for the Ether[i]fication/Condensation” but ultimately concluded that “these step[s] ha[ve] to be used in sequence and [are] very difficult to avoid.” (Dkt. 99-18 at WG00000033; see also Dkt. 99-6, Wu Tr. at 95:23–96:1.) Nonetheless, Willowood chose to use azoxystrobin made using a process that it knew to practice the claimed steps of the ’138 Patent. Further, as discussed above, even if two entities practice the etherification and condensation reactions, Willowood orchestrated the manufacture of its azoxystrobin.

**V. Syngenta Will Prevail on Issues Relating to Willowood’s Infringement of the ’761 DABCO Patent.**

**A. Defendants Have Not Proven by a Preponderance of Evidence that Their Azoxystrobin Technical Is Manufactured Using a Process that Does Not Infringe the ’761 Patent.**

This Court has applied the presumption under 35 U.S.C. § 295 that Willowood’s azoxystrobin technical is manufactured using DABCO at the levels claimed in the ’761 Patent, and it is Willowood’s burden to prove by a preponderance of the evidence that it is not so made. (Dkt. 141 at 27.) Willowood cannot sustain that burden. Throughout this case, Willowood’s sole argument has been that its manufacturer, Tai He, does not use DABCO in the condensation reaction used to manufacture Willowood’s azoxystrobin. The

record firmly refutes that proposition. First, Dr. Joseph Fortunak, who has extensive industry experience in synthesizing organic molecules, opines that there is a substantial likelihood that Willowood's azoxystrobin technical is manufactured using DABCO. Second, Syngenta has extensively tested Willowood's Azoxy 2SC product. (Dkt. 96-1, Fortunak Decl. ¶¶ 97–116.) As Dr. Fortunak explains, this body of testing demonstrates not only the presence of DABCO in Willowood's azoxystrobin technical but also two DABCO-related byproducts that are formed through the use of DABCO during the condensation reaction. (*Id.* ¶ 128.) Third, Brian Heinze, Willowood's corporate designee on topics related to the testing of the accused products, also testified that at least two outside laboratories, including JDM (owned by Mr. Vijay Mundhra of W-Ltd.) and CAC Shanghai, have tested and confirmed that DABCO is present in Willowood's azoxystrobin technical. (Dkt. 99-4, Heinze Tr. at 271:2–17, 274:20–275:7; Dkt. 99-10, WW022213–21.)

**B. Defendants Willfully Infringed the '761 Patent.**

Having been aware of Syngenta's '761 Patent since “early to mid-2013” (Dkt. 96-10, Heinze Tr. at 199:16; 211:14–18), Willowood willfully infringed and continues to willfully infringe the '761 Patent. In fact, despite being presented with testing data from both CAC Shanghai and Syngenta, Willowood continues to use azoxystrobin made using the claimed process of the '761 Patent.

**C. Defendants Cannot Establish Through Clear and Convincing Evidence that the Asserted Claims of the '761 Patent are Invalid as Obvious.**

Willowood has not, and cannot, demonstrate that the asserted claims of the '761 Patent are invalid as obvious. To assert invalidity, Willowood relies exclusively on Dr. Lipton's opinion that a person of ordinary skill in the art would have found it obvious based on the Weintritt reference to make azoxystrobin using DABCO between 0.1 and 2 mol %. As an initial matter, Willowood bears a heavy burden in proving invalidity based on clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. P'ship*, 564 U.S. 91, 95 (2011). That

burden is all the more difficult for Willowood to sustain here because Willowood relies on the exact same prior art reference—and exact same arguments—that the Patent Office previously considered and rejected in allowing the claims of the '761 Patent over the Weintritt reference. (Dkt. 96-2, Fortunak Reb. Decl. ¶¶ 22–27.) In fact, Dr. Lipton acknowledges that he simply relies on the same prior art considered during prosecution, without identifying any new prior art or new arguments. (Dkt. 96-15, Lipton Tr. at 134:2–137:22.) Thus, Dr. Lipton's opinions are entitled to little weight. *Feit Elec. Co., Inc. v. Cree, Inc.*, No. 1:15CV535, 2016 WL 1057039, at \*5 (M.D.N.C. Mar. 14, 2016); *see also* *i4i*, 564 U.S. at 91.

Regardless, Dr. Lipton improperly reconstructs the claimed method of the '761 Patent based on hindsight, using the '761 Patent as a roadmap. (Dkt. 96-2, Fortunak Reb. Decl. ¶ 52.) It is undisputed that Weintritt does not disclose using DABCO at levels below 2 mol % or any examples of making azoxystrobin. In fact, as Dr. Fortunak explains, the Weintritt reference (a) states that it was “extremely surprising” that the disclosed reaction could be carried out satisfactorily using DABCO at levels less than 100 mol % (submolar), much less in the range of 2–40 mol %, and (b) specifically reports that the yield was “very poor” when no DABCO was used. (Dkt. 96-2, Fortunak Reb. Decl. ¶ 53; Dkt. 96-34, Weintritt ¶ [0109].) Thus, Weintritt expressly *teaches away* from the use of DABCO at lower levels as in the claimed range of the '761 Patent. (Dkt. 96-2, Fortunak Reb. Decl. ¶ 53); *see Pozen Inc. v. Par Pharm., Inc.*, 696 F.3d 1151, 1164–65 (Fed. Cir. 2012) (affirming finding of nonobviousness where prior art taught away from proposed modifications). For their part, Willowood and Dr. Lipton do not at all explain why (absent hindsight) a person of ordinary skill in the art would have sought to synthesize azoxystrobin by applying Weintritt's purported teachings up to a point but then depart from Weintritt's teachings by

using lower levels of DABCO.<sup>3</sup>

## **VI. Willowood's Patent Infringement Has Resulted in Substantial Monetary Damages to Syngenta.**

Syngenta is entitled to “damages adequate to compensate” for Willowood’s patent infringement that must be “in no event less than a reasonable royalty for the use made of the invention by the infringer” along with “interest and costs as fixed by the court.” 35 U.S.C. § 284. To recover damages for lost profits, Syngenta must “show a reasonable probability that, ‘but for’ the infringement, it would have made the sales that were made by the infringer.” *Rite-Hite Corp. v. Kelley Co., Inc.*, 56 F.3d 1538, 1545 (Fed. Cir. 1995). Here, as a result of patent infringement, Willowood entered the market significantly earlier than it otherwise could have entered, and began selling competing azoxystrobin products that not only resulted in lost sales to Syngenta but also eroded the price that Syngenta could charge for its azoxystrobin products, resulting in substantial lost profits to Syngenta.

In order to determine Syngenta’s “but for” profits absent Willowood’s infringement of the Compound Patents, Syngenta’s damages expert, Dr. Benjamin Wilner, applied a benchmarking analysis in which he began with Syngenta’s actual and budgeted gross profits for the AZ Products-at-Issue (in the aggregate) to determine how much of its budgeted gross profits Syngenta was able to achieve (“intra-AZ”), while facing Willowood’s early market entry and generic price pressure. (Dkt. 149-1, Wilner Rep. at 32.) Dr. Wilner similarly examined Syngenta’s actual and budgeted gross profits on its mesotrione products (in the aggregate) to determine the extent to which Syngenta was able to achieve its budgeted mesotrione gross profits (“intra-meso”), for which Syngenta did not face early market entry and price pressure from Willowood. (*Id.*) Dr. Wilner adjusted his intra-AZ comparison using the intra-meso comparison, assuming that “but for”

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<sup>3</sup> To be sure, the USPTO Examiner initially raised the same arguments that Willowood raises but ultimately agreed that the claims of the ’761 Patent are not obvious over Weintritt. (Dkt. 96-2, Fortunak Decl. ¶ 49.)

Willowood's infringement, Syngenta would have achieved its budgeted amount of gross profits for the AZ Products-at-Issue to the same extent that Syngenta achieved its budget for its mesotrione products.<sup>4</sup> (*Id.*)

The intra-AZ and intra-meso comparisons together serve as appropriate benchmarks because mesotrione and azoxystrobin are subject to the same budgetary process (*id.* at 29–30) and have a number of product-lifecycle similarities (*id.* at 30 (citing Ex. 2, Wichert Tr. at 265–267)). Whereas azoxystrobin is one of Syngenta's best-selling fungicides, mesotrione is one of Syngenta's best-selling herbicides. (*Id.* 29–30.) Both are well-established products, with mesotrione being approved for application on the same major crops as azoxystrobin, including corn and soybeans. (*Id.*) Until 2014, generic companies also faced significant barriers to entry with respect to both mesotrione and azoxystrobin. (*Id.*) For example, Syngenta's Compound Patents expired in February 2014, before which Syngenta possessed the right to exclude companies from importing, making, using, selling, or offering for sale the azoxystrobin compound in the United States under 35 U.S.C. § 271(a). (*Id.*) Similarly, Syngenta possessed data exclusivity over mesotrione until June 2014, before which generic companies were barred from relying on the data Syngenta previously submitted to the EPA to apply for a "me-too" mesotrione registration under 7 U.S.C. § 136a(c)(1)(F). (*Id.* at 30–31.) Also, just as Syngenta introduced Trivapro<sup>®</sup> (a new combination fungicide) as the next rung on its azoxystrobin brand ladder approximately 16 months after the Compound Patents expired, Syngenta introduced Acuron<sup>®</sup> (a new combination herbicide) as the next rung on its herbicide brand ladder about 10.5 months after Syngenta lost data exclusivity over mesotrione. (*Id.* at 31.)

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<sup>4</sup> Notably, despite Syngenta's exacting budgetary process (Dkt. 149-1, Wilner Rep. at 29–30), Dr. Wilner pressure-tested Syngenta's budgets by using the combination of the actual and budgeted sales from the intra-AZ and intra-meso comparisons along with their interactions to adjust Syngenta's forecasts for the AZ Products-at-Issue (*id.* at 32).



Using the combination of the intra-AZ and intra-meso benchmarks, Dr. Wilner calculated the incremental lost profits that Syngenta suffered in years 2014-2017. (*Id.* at 32–34.) Notably, Dr. Wilner’s analysis shows that Syngenta’s actual incremental profits in 2014 were approximately the same as Syngenta’s “but for” profits in 2015. (*Id.* at 35, Ex. 9.e.) Thus, Syngenta actually earned in 2014 what Dr. Wilner’s benchmarking analysis found that Syngenta would have earned about one year later “but for” Willowood’s infringement, reflecting the approximately one-year head start that Willowood obtained by infringing the Compound Patents, with the effects of the head start continuing to linger. (*Id.*) This confirmatory analysis verifies and confirms Dr. Wilner’s benchmark analysis. (*Id.*) Additionally, Dr. Wilner examined other benchmarks such as Syngenta’s Crop Protection Fungicides, all Syngenta products, and indices such as the Producer Price Index to ensure that his analysis was conservative. (*Id.* at 32–33.) To the extent that the trier of fact concludes that third-party Cheminova contributed to some of Syngenta’s losses, Dr. Wilner performed a separate calculation that proportionally allocates Syngenta’s lost gross profits based on the relative import shares of kilograms of active ingredient by Cheminova and Willowood. (*Id.* at 35 (citing *State Indus., Inc. v. Mor-flo Indus., Inc.*, 883 F.2d 1573 (Fed. Cir 1989)).)

The ’138 Patent expired eighteen months after the Compound Patents, and the ’761 Patent is in force until 2029. By infringing these patents, Willowood obtained a substantially longer head start than by simply infringing the Compound Patents. Dr. Wilner conservatively opines that the damages resulting from Willowood’s infringement of the ’138 and ’761 Patents are no less than, and at least as great as, Syngenta’s damages resulting from Willowood’s infringement of the Compound Patents.

Further, as discussed above, Willowood was aware of all four asserted patents by mid to early 2013 but chose to willfully infringe each of these patents. Under 35 U.S.C. §

284, this Court should exercise its discretion to award Syngenta treble damages for Willowood's willful infringement. *See Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1932, 1935–36 (2016).

## **VII. Syngenta Will Be Entitled to Permanent Injunctive Relief.**

After the jury finds that Willowood has infringed and continues to infringe Syngenta's '761 Patent, Syngenta will move for a permanent injunction to stop future infringement of the '761 Patent. *See* 35 U.S.C. § 283. A permanent injunction is an equitable remedy for the Court to decide that requires a showing that (1) Syngenta has incurred irreparable injury; (2) monetary damages and other legal remedies are inadequate to compensate for that injury; (3) an injunction is warranted in view of the balance of hardships and (4) the public interest. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391-92 (2006). Here, Syngenta has suffered irreparable harm because Willowood's sale of products made using the claimed method of the '761 Patent has eroded and continues to irreversibly erode the market for Syngenta's azoxystrobin products. Where, as here, an infringer "elects to build its business on product found to infringe," the infringer has no basis to complain about any hardship. *Odetics, Inc. v. Storage Tech. Corp.*, 14 F. Supp. 2d 785, 797 (E.D. Va. 1998) (quoting *Windsurfing Int'l Inc. v. AMF, Inc.*, 782 F.2d 995, 1003 n.12 (Fed. Cir. 1986)). Further, the public interest favors enforcement of intellectual property rights and "maintaining the integrity of the patent system." *Id.* at 795; *see also Payless Shoesource, Inc. v. Reebok Int'l Ltd.*, 998 F.2d 985, 991 (Fed. Cir. 1993) (holding that district court abused its discretion in failing to consider public interest in enjoining infringement).

### **VIII. Syngenta Anticipates Filing Motions for Judgment as a Matter of Law.**

At the close of Syngenta's case-in-chief and after the close of Willowood's case-in-chief, Syngenta anticipates moving this Court for entry of judgment as a matter of law that W-Ltd. infringed the asserted claims of the Compound Patents, that Defendants infringed the asserted claims of the '138 and '761 Patents, that these infringements were willful, and that the asserted claims of the '761 Patent are valid on the theory that, based on the evidence presented, no reasonable jury could find for Defendants on these issues. FED. R. CIV. P. 50(a). Syngenta anticipates renewing its motion at the end of all of the evidence. *Id.* If for any reason the jury finds for Defendants, contrary to the evidence, Plaintiffs also anticipate renewing their request for judgment as a matter of law or requesting a new trial. FED. R. CIV. P. 50(b), 59.

**Dated:** July 10, 2017

By: /s/ Hari Santhanam  
Russell E. Levine, P.C.  
Hari Santhanam  
Kourtney Baltzer  
KIRKLAND & ELLIS LLP  
300 North LaSalle  
Chicago, Illinois 60654  
Telephone: (312) 862-2000  
Facsimile: (312) 862-2200  
russell.levine@kirkland.com  
hari.santhanam@kirkland.com  
kourtney.baltzer@kirkland.com

By: /s/ Richard A Coughlin  
Richard A Coughlin  
North Carolina State Bar No. 19894  
C. Bailey King  
North Carolina State Bar No. 34043  
Whit D. Pierce  
North Carolina State Bar No. 46327  
SMITH MOORE LEATHERWOOD LLP  
300 N. Greene Street, Suite 1400  
Greensboro, North Carolina 27401  
Telephone: (336) 378-5200  
Facsimile: (336) 378-5400  
rick.coughlin@smithmoorelaw.com  
bailey.king@smithmoorelaw.com  
whit.pierce@smithmoorelaw.com

*Attorneys for Plaintiff Syngenta Crop Protection, LLC*

**CERTIFICATE OF WORD COUNT**

The undersigned hereby certifies that the foregoing document complies with the type-volume limitations of L.R. 7.3(d)(1) and contains 7,994 words, excluding those portions exempted by the rule.

This the 10th day of July, 2017.

/s/ Hari Santhanam

Hari Santhanam

**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that the foregoing document has been filed electronically with the Clerk of the Court using the CM/ECF system, which will send notification of such filing to counsel of record in this action.

This the 10th day of July, 2017.

/s/ Hari Santhanam  
Hari Santhanam